

PATENT APPLICATION

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of Kota KITAMURA, et al.  
Group Art Unit : (Unassigned)  
Application No. : (Natl. Phase of PCT/JP2003/013278)  
Examiner : (Unassigned)  
Filed : (Herewith)  
Docket No. : 12477/8  
For : COMPOSITE ION-EXCHANGE MEMBRANE

INFORMATION DISCLOSURE STATEMENT

## COMMISSIONER FOR PATENTS

Customer Service Window  
Randolph Bldg.  
401 Dulany Street  
Alexandria, VA 22314

Sir:

Pursuant to 37 CFR § 1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom. The filing of this Information Disclosure Statement and the enclosed PTO Form No. 1449, shall not be construed as an admission that the information cited is prior art, or is considered to be material to patentability as defined in 37 C.F.R. § 1.56(b). The paragraphs marked below are applicable. It is believed that no fees other than those indicated below are due, but authorization is hereby given to charge any additional fees due, or to credit any overpayment, to deposit account 11-0600.

☒ 1. This Information Disclosure Statement is being filed (a) within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d), (b) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application, (c) before the mailing date of a first Office Action on the merits in the present application, OR (d) before the mailing of a first office action after filing of a request for continued examination. No certification or fee is required.

☐ 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action

on the merits, but before the mailing date of a final action, Notice of Allowance, or any action that otherwise closes prosecution.

☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).

b. I hereby certify that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).

c. Please debit Deposit Account No. 11-0600 in the amount of \$180.00 in payment of the fee under 37 CFR §1.17(p) to ensure consideration of the disclosed information. Two duplicate copies of this paper are attached. 37 CFR §1.97(c)(2).

3. This Information Disclosure Statement is being filed after the mailing date of a final action, Notice of Allowance or an action that otherwise closes prosecution, but before payment of the Issue Fee. Applicant(s) hereby request(s) that the Information Disclosure Statement be considered. Please debit Deposit Account No. 11-0600 in the amount of \$180.00 in payment of the petition fee under 37 CFR §1.17(p) to ensure consideration of the disclosed information. Two duplicate copies of this paper are attached.

a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).

b. I hereby certify that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, no item contained in the Information Disclosure Statement was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).

☐ 4. Relevance of the non-English language reference(s) is discussed in the present specification.

☐ 5. The reference(s) was/were cited in a counterpart foreign application. An English language version of the foreign search report is attached for the Examiner's information.

6. A concise explanation of the relevance of the non-English language reference(s) appears in the Appendix attached hereto.

7. The Examiner's attention is directed to co-pending U.S. Patent Application No. \_\_\_\_\_, filed \_\_\_\_\_, which is directed to related technical subject matter. The identification of this U.S. Patent Application is not to be construed as a waiver of secrecy as to that application now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited application and the art cited therein during examination of the present application.

8. This application is one of a series of related applications, identified in the attached Appendix, which are directed to related technical subject matter. The identification of those U.S. Patent Applications is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during the examination.

☐ 9. The reference(s) was/were cited by or submitted to the Office in parent application No. \_\_\_\_\_ filed \_\_\_\_\_, which is relied upon for an earlier filing date under 35 U.S.C. §120. Thus, copies of these references are not attached. 37 CFR §1.98(d).

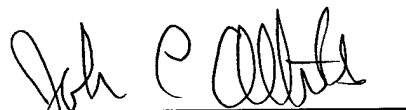
☒ 10. English-language Abstracts are attached to the non-English language references.

☒ 11. No copies of U.S. references are required.

☒ 12. Other: A copy of the International Search Report is also enclosed.

Respectfully submitted,

Date: 11 April 2005

  
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PTO/SB/08a (08-03)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

JC13 Rec'd PCT/PTO 11 APR 2005

Application Number	(Natl. Phase of PCT/JP2003/013278)
Filing Date	(Herewith)
First Named Inventor	Kota KITAMURA
Art Unit	(Unassigned)
Examiner Name	(Unassigned)

Sheet 1 of 2

Attorney Docket Number 12477/8

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
	1	US-6,194,474	02/27/01	KERRES et al.	= WO 99/54389
	2	US-5,438,082	08/01/95	HELMER-METZMANN et al.	= JP 06-093114 A
	3	US-6,670,424	12/30/03	MICHOT et al.	= WO 99/38897
	4	US-2002/0091225 A1	07/11/02	McGRATH et al.	
	5	US-4,703,103	10/27/87	WOLFE et al.	
	6	US-4,533,692	08/06/85	WOLFE et al.	
	7	US-4,533,724	08/06/85	WOLFE et al.	
	8	US-4,533,693	08/06/85	WOLFE et al.	
	9	US-4,539,567	09/03/85	BREWER	
	10	US-4,578,432	03/25/86	TSAI et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
	1	WO 99/54389	10/28/99	UNIVERSITAT STUTTGART		
	2	JP 06-093114	04/05/94	HOECHST AG		
	3	WO 99/61141	12/02/99	MINNESOTA MINING AND MFRG CO.		
	4	WO 99/38897	08/05/99	HYDRO- QUEBEC		
	5	JP 02-248434	10/04/90	ASAHI GLASS CO LTD		
	6	JP 02-245035	09/28/90	ASAHI GLASS CO LTD		
	7	JP 05-001149	01/08/93	NIPPON STEEL CORP		
	8	JP 05-004031	01/14/93	NIPPON STEEL CORP		
	9	WO 00/22684	04/20/00	FOSTER- MILLER, INC.		
	10	JP 2002-203576	07/19/02	TOYOTA CENTRAL RES & DEV LAB INC		
	11	JP 2001-514431	11/09/01	FOSTER- MILLER, INC.		
	12	WO 99/10165	03/04/99	FOSTER- MILLER, INC.		
	13	JP 50-124881	10/01/75	MATSUSHITA ELECTRIC IND CO, LTD		
	14	WO 02/25764	03/28/02	VIRGINIA TECH IP, INC.		
	15	JP 2003-217342	07/31/03	TOYOBO CO LTD		
	16	JP 2003-217343	07/31/03	TOYOBO CO LTD		

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. #496699

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	(PCT/JP03/13278))
		Filing Date	(Herewith)
		First Named Inventor	Kota KITAMURA
		Art Unit	(Unassigned)
		Examiner Name	(Unassigned)
		Attorney Docket Number	12477/8
Sheet	2	of	2

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	1	F. Lufrano et al.: "Sulfonated Polysulfone as Promising Membranes for Polymer Electrolyte Fuel Cells", Journal of Applied Polymer Science, John Wiley & Sons, Inc. Vol. 77 2000	
		pp. 1250-1256	
	2	Mitsuru Ueda, et al.: "Synthesis and Characterization of Aromatic Poly(ether Sulfone)s Containing Pendant Sodium Sulfonate Groups, Journal of Polymer Science Part A:	
		Polymer Chemistry March 1993, Vol. 31, No. 4, pp. 853-858	

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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